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I mention this to show how it was my attention was first directed, and then fixed, upon this appearance.

"I see, generally, that the appearance of the 8th inst. is only noticed. I am quite certain it appeared twice, and I believe this was also noticed in one of the *Times* letters. Now, as regards the time. The first lines of formation were about twenty minutes past six—the form itself remained on Thursday evening until after seven. It commenced as the sun declined. The wind was gentle, rather more north than east; and there was a hazy mist at sea and hanging about the horizon during the time. I do not think there was anything particular in the appearance of the accompanying clouds, except that I thought the glow of the sunset here was much ruddier than usual, more resembling the hue I have seen represented in the Panorama of the Nile, where sunset effect is attempted, than that golden, bright, luminous hue which flushes and fades in our horizon at that time.

"I cannot, unfortunately, draw, or I would send a coloured sketch, as I have the effect very perfect in my mind, and watched it closely. The column was directly over the sun, broader at the base, over the sun's disc, and slightly diminishing towards the top, not unlike a battledore with its head downwards, and a short broad handle. Whether the gradual diminution was real or no, I cannot say. It appeared so to me, but I judged this might arise, perhaps, from the upper part being less illuminated. It declined and faded gently into a pale yellow light from the top, diminishing from the top. It was brightest as the sun dipped below the horizon; and I think at that time the moon was at the full, and her light, it struck me, had some influence in graduating some of the sunset effects. But this must not be understood as a positive fact. On Thursday evening I watched the appearance more particularly. It differed from the first only in intensity and greater altitude. Towards seven, a cloud of fleecy brightness on its skirts crossed the column, and formed for a minute or two, as it sailed on, a fine cross.

"I have mentioned Tuesday evening as the first appearance of the column. I am positive it occurred twice; and as my memory is tolerably good, I do not think I shall mislead in fixing this as the day. With regard to time I did not note it by reference to my watch. My statement, therefore, must be read as that of limit between commencement and decay."

Extract of a Letter from W. S. Ayrton, Esq., to Capt. W. H. Smyth, R.N.

"The letters in *The Times* refer to a pillar of light seen to proceed from the sun on Thursday, the 8th of April. I did not observe the phenomenon on that day, but I witnessed its recurrence on Sunday, the 11th.

"On that day, just before sunset, I noticed a pillar of light

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proceeding from the sun, and I at once devoted myself to observing it. After viewing this for about five minutes, I recollected that it might be important to fix the time, which I *then* found to be 10 minutes to 7; I think, therefore, that it was a quarter before 7 when my attention was first drawn to the fact.

"Upon subsequently inspecting the Registry kept at the Leeds Philosophical Society, I found the following entries made at 3 P.M. on the 11th:—

	i
Barometer	30·154
Attached Thermometer	62°
Dry Bulb Thermometer	62
Wet Bulb Thermometer	59

Wind, South-east.

"The evening of the 11th was chilly, but very still. My house is situated about a mile and a half, in a direct line, N.N.E. of Leeds; and the smoke of that place formed an excellent screen, enabling me to view the sun without difficulty.

"The column of light proceeded directly from the sun, and was perfectly perpendicular to it. Of this I satisfied myself by referring to some tall chimney shafts in the neighbourhood of the column. It was at its base exactly of the diameter of the sun, and was very nearly, if not quite, of the same diameter throughout; perhaps not quite, but slightly enlarging as it proceeded towards the zenith; but this increase in diameter, if any, was very small.

"The light of the column gradually became fainter and fainter as it advanced towards the zenith, so that the exact line of its termination could not be defined.

"In order to form some conjecture as to its elevation and diameter, I held at arm's-length,—carefully noting the exact manner in which I held it,—a piece of pencil, which I have since measured and find to be 2½ inches long, and 2½ tenths of an inch diameter. This was held 34 inches from the eye, and then I estimated the height of the column of light to be twice the height of the pencil, and with regard to diameter, the pencil just covered the column. From these data its apparent dimensions in degrees can easily be ascertained.

"As the sun was setting I moved to the highest ground of the little park, in which my house is situated, and thence observed its setting without any intervening obstructions.

"I am quite certain that the column of light constantly appeared to proceed directly from the sun; that it was perpendicular, and continued so, and, as a consequence, followed the apparent solar motion.

"After the sun had set, the light appeared for some time to get brighter, and then gradually became fainter and fainter, till it was reduced to a mere blush. At half-past 7, all trace of the light disappeared.

"After the sun had set some time, the column appeared to sink faster than seemed to agree with the rate at which the sun itself was sinking, and as if the column was undergoing a reduction in length.

" The light, at first, was of a faint yellow, with a tinge of pink. Afterwards the yellow hue gave place to the pink, the latter becoming rather deeper in colour; but this colour all through was faint, and partook of the general tint of the sky, or rather of the smoke and vapour of the neighbourhood.

" I have mentioned that the smoke of Leeds was interposed between myself and the sun. The light of the column was sufficiently strong to appear as if it cut through and divided the smoke; in other words, as if there was no smoke whatever in the space occupied by the column.

" A neighbour, Sir George Goodman, who lives about four miles north-west of Leeds, and on higher ground, observed this column of light with an addition of three cross-bars at the top. But of these no trace whatever was perceptible from my grounds."

Mr. Patrick Diggins, of Dunmore East, County Waterford, intimates that he has discovered " a new method of finding the latitude when the object is off the meridian;" the requisite data are " the apparent time from noon, and the latitude by account." No description of the computation is given.

Capt. Shea has furnished a continuation of his drawings of the solar spots. He remarks a particular arrangement on the 17th, 18th, and 19th of February, which he considers to have a strong resemblance to a ship.

Erratum in No. V.

Page 152, line 4 from the bottom, *for* 18″·61, *read* 28″·61.

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